

34 has been amended to read, "The top plate 336 is attached to one of the base or payload and the bottom plate 332 is attached to the other of the base or payload." However, the Examiner argues, "the drawings only show the bottom plate 332 being attached to the base and the top plate 336 being attached to the payload. The alternative arrangement is not shown or nor was it previously disclosed." Applicants respectfully disagree.

The alternative arrangement is fully supported in the original disclosure in claims 17, 22, and 44 as originally filed. Each of claims 17, 22, and 44 refer to the bottom plate being attached to one of the base structure or payload and the top plate being attached to the other. Therefore, the objected phrase is fully supported in the original disclosure and does not introduce new matter into the disclosure.

Accordingly, it is respectfully requested that the objections to the specification under 35 USC § 132 be withdrawn.

Furthermore, Applicants respectfully disagree with the Examiner's argument that the drawings only show the bottom plate being attached to the base and the top plate being attached to the payload and not the alternative arrangement. Figure 6a shows the vertical support means having the top and bottom plates (336, 332, respectively). However, neither of the top and bottom plates are shown attached to either of the base or payload in Figure 6a. Figure 6a is merely a detailed view of a particular embodiment of the vertical support means. The vertical support means is shown in another figure (Figure 3) with regard to the base structure and payload. However, as the claims make explicit, and as is inherently understood by those of ordinary skill in the art, either of the top or bottom plates can be attached to the base structure, and the other can be attached to the payload. Therefore, Applicants respectfully submit that there is no need to show each alternative configuration in

the Drawings. The drawings show each of the elements recited in the specification, and it is inherently understood by those of ordinary skill in the art, from the description, including the claims, that each of the alternative configurations is possible.

In the Final Official Action, the Examiner maintains the rejections of the claims from the previous Official Action. In response, Applicants again respectfully traverse the Examiner's rejections under 35 U.S.C. §§ 102(b) and 103(a) for at least the reasons set forth below.

In response to the Examiners rejections under 35 U.S.C. § 102(b), Applicants previously argued that (1) Sutcliffe, Whelpley, and Marshall do not teach maintaining a payload and base structure in a parallel relationship and that (2) Macpherson does not teach a support means which suppresses vertical and horizontal vibrations.

In response to item (1), the Examiner argues that such references teach maintaining a payload and base in a parallel relationship **at a given instant** as shown in the corresponding figures. Applicants respectfully submit that the terms in the claims are read in light of the specification and are given their ordinary meaning unless the Applicants, acting as lexicographer, gives them a different meaning. To maintain something means more than at an instant. "Maintain" means "to continue, carry on, keep up" (as defined by *The American Heritage Dictionary of the English Language*, a copy of such definition is enclosed). This ordinary meaning of "maintain" is supported in the specification which describes maintaining the parallel relationship between the base structure and payload over the range of motion of the motion constraint means. The Examiner's interpretation of "maintaining" is therefore contrary to its ordinary meaning, the meaning described in the specification, as well as the meaning understood by those of ordinary skill in the art.

With regard to item (2), Applicants previously argued that component 11 of Macpherson is not a support means and does not provide a vertical and lateral support to suppress transmission of vertical or lateral vibrations. In response, the Examiner argues, "component 11 supports or serves as a foundation particularly providing vertical support along with links 36, 38, 30." Applicants respectfully submit that component 11 is itself described as a base plate in Macpherson, while it may to some degree support a payload, as a rigid member, it does not and cannot serve to suppress either vertical or lateral vibrations between the base structure and payload. As a rigid base plate, component 11 will serve to transmit any vibrations between the payload and base structure.

In view of the above, it is respectfully requested that the Examiner reconsider the rejections under 35 U.S.C. § 102(b) and withdraw the same.

In other words, a payload isolation system having the features described above, and as claimed in independent claims 1, 27, and 36, is nowhere disclosed in either Macpherson, Sutcliffe, Marshall, or Whelpley. Since it has been decided that "anticipation requires the presence in a single prior art reference, disclosure of each and every element of the claimed invention, arranged as in the claim,"<sup>1</sup> independent claims 1, 27, and 36 are not anticipated by any one of Macpherson, Sutcliffe, Marshall, or Whelpley. Accordingly, independent claims 1, 27, and 36 patentably distinguish over Macpherson, Sutcliffe, Marshall, and Whelpley and are allowable. Claims 2-8, 12, 13, 19-21, 23, 28-32, 35, 37, and 38 being dependent upon claims 1, 27, and 36, are thus allowable therewith.

With regard to the Rejections under 35 U.S.C. § 103(a), Applicants previously argued that in addition to Sutcliffe and Whelpley not disclosing maintaining a base and

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<sup>1</sup> Lindeman Maschinenfabrik GMBH v. American Hoist and Derrick Company, 730 F.2d 1452, 1458; 221 U.S.P.Q. 481, 485 (Fed. Cir., 1984).

payload in a parallel relationship, (3) Goldbach does not teach first and second plates that are movable relative to each other, and (4) Sutcliffe does not discuss the change in effective weight of the payload which is not inherent in the art of machinery mounts since machines do not have a varying weight.

With regard to item (3), the Examiner now argues that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. Applicants respectfully submit that the Examiner has misapplied this test for nonobviousness. Applicants in effect previously argued that the Examiner has not made a prima facie case of obviousness by asserting that certain features in the rejected claims are not shown in either of the references. Applicants argued that in addition to Sutcliffe and Whelpley not showing maintaining a base and payload in a parallel relationship, Goldbach does not teach first and second plates that are movable relative to each other. Thus, Applicants have not treated the references individually, but have argued against the Examiner's prima facie case of obviousness because the references, alone or in combination, do not teach the claim limitations.

The Examiner also argues with regard to item (3) that Goldbach is used solely for the teaching of the top and bottom plates used to reinforce the top and bottom surfaces of a resilient member. The top and bottom plates of Goldbach merely encase a resilient member, therefore, there is no teaching in either of the Sutcliffe or Whelpley or Goldbach references that teach (a) maintaining a base and payload in a parallel relationship and (b) that the top and bottom plates are movable with respect to each other, both of which are recited in the rejected claims. Therefore, the Examiner has failed to make a prima facie case of obviousness and the

rejections under 35 U.S.C. § 103(a) which cite Goldbach in combination with Sutcliffe and/or Whelpley must be withdrawn.

With regard to item (4), The Examiner argues that "it would have been obvious to one of ordinary skill to have utilized the payload isolation system of Sutcliffe in a rocket environment to isolate vibrations occurring between rocket components and that the use of such a system in a rocket environment would inherently result in the payload having a varying weight as the value of gravity changes during the course of rocket travel." Applicants respectfully reiterate their argument as set forth in the previous response that the Examiner is using impermissible hindsight in combining Sutcliffe with the knowledge of one of ordinary skill in the art. As argued previously, Sutcliffe is directed to machinery mounts, therefore there is absolutely no suggestion in Sutcliffe of changing the effective weight of the payload. Furthermore, the Examiner makes no showing of the level of skill in the art and why someone skilled in the art would be motivated to combine his or her knowledge with that which is shown in Sutcliffe (assuming arguendo that Sutcliffe discloses the remaining features of the rejected claims, which as discussed above, it does not). Therefore, the combination of Sutcliffe with the knowledge of a person skilled in the art is improper and must be withdrawn.

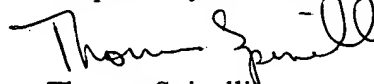
Thus, independent claims 1 and 39, are not rendered obvious by the cited references because none of the cited references, whether taken alone or in combination, teach or suggest a support system and apparatus for maintaining a parallel relationship between a base and payload as recited in claims 1 and 39. Accordingly, claims 1 and 39 patentably distinguish over the prior art and are allowable. Claims 14-18, 24-26, 39-44, and 46-49, being dependent upon claims 1 and 39, are thus allowable therewith. Consequently, the Examiner is

respectfully requested to withdraw the rejection of claims 14-18, 24-26, 39-44, and 46-49 under 35 U.S.C. § 103(a).

Lastly, Applicants previously argued that there is no motivation or suggestion to combine any of the primary and secondary references cited in the rejections of the claims. In the Final Official Action, the Examiner does not respond to such argument. It is respectfully requested that the Examiner respond to such argument on the record in the next Official communication.

The above amendments and remarks establish the patentable nature of all the claims currently in this case. Issuance of a Notice of Allowance and passage to issue of these claims are therefore respectfully solicited. If the Examiner believes that a telephone conference with Applicant's attorney would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted

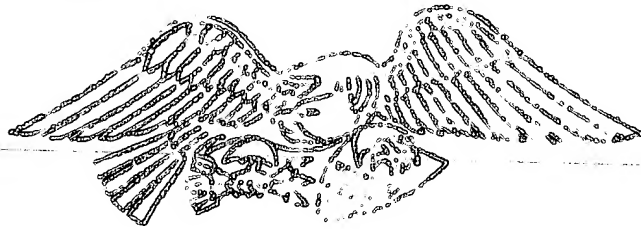


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**maim** (mām) *tr.v.* maimed; maiming. **maims**. 1. To deprive (a person) of, or of the use of, a limb or bodily member; mutilate; disable; cripple. 2. To make imperfect or defective; impair: *The bill was maimed by extensive amendments.* [Middle English *maymen*, *mayhaymen*, to wound, from Old French *mahaignier*, from Common Romance *mahagnäre* (unattested), probably from Germanic. See *mai-* in Appendix.\*]

**Mai-mon-i-des** (mi-mōn'-dēz'), **Moses**. Also called **Moses ben Maimon**. 1135-1204. Spanish-born Jewish philosopher and physician; codifier of the Talmud; rabbi of Cairo.

**main** (mān) *adj.* 1. Most important; principal; major: *the main building on the campus*. 2. Exerted to the utmost; sheer; utter: *They took her off the sled by main strength.* (Jack London). 3. Of or relating to a continuous area or stretch, as of land or water: *the main ocean*. 4. Obsolete. Very great or considerable of its kind; remarkable: *"I am a main bungler at a long story."* (Sheridan). 5. Obsolete. Highly important; momentous: *"by this main accident of time"* (Bacon). 6. Obsolete. Showing or having great strength; mighty: *"soaring on main wing"* (Milton).

**Grammar**. Denoting the principal clause, verb, or phrase referring to the subject in a complex sentence. 8. **Nautical**. Connected to or located near the mainmast: *a main skysail*.

**n.** 1. The principal or most important part or point: *"The main of life is composed of small incidents."* (Samuel Johnson).

2. The principal pipe or conduit in a system for conveying water, gas, oil, or other utility. 3. Physical strength. Used chiefly in the phrase *might and main*. 4. **Rare**. The mainland, as distinguished from islands. This historical use survives chiefly in the phrase *Spanish Main* (see). 5. **Poetic**. The open ocean: *on the high main*. 6. **Nautical**. a. The mainsail (see). b. The mainmast (see).

—in the main. Mostly, on the whole; chiefly: *My father's sonnets are in the main hard reading.* (Tucker Brooke). —See Synonyms at *chief*. [Middle English, from Old English *mægen*, strength, and *mægn* (used in compounds), "strong," "great." See *mægh-* in Appendix.\*]

**main** (mān) *n.* 1. In dice playing, a throw of the dice. 2. A series of pockfights consisting of an odd number of matches. [Origin uncertain.]

**Main** (mān; German *min*). A river of West Germany rising in northern Bavaria, and flowing 305 miles westward to the Rhine.

**main chance**. One's most advantageous opportunity.

**main clause**. **Grammar**. The clause in a complex sentence that stands syntactically by itself; an independent clause.

**main deck**. The principal deck of a ship or other large vessel.

**main drag**. **Slang**. The principal street of a city or town.

**Maine** (mān). The northeasternmost state of the United States, 33,000 square miles in area, bordered on the east by the Atlantic Ocean. It joined the Union in 1820. Population, 994,000. Capital, Augusta. See map at United States of America. [After Maine, former province of France.]

**Maine** (mān). A U.S. battleship blown up in the harbor of Havana, Cuba, on February 15, 1898, with the loss of 260 lives. The explosion was a cause of the Spanish-American War.

**main land** (mān'lānd', -lənd) *n.* The principal land mass of a country, territory, or continent, as distinguished from an island or peninsula.

**main land** (mān'lānd). 1. Pomona, the largest of the Orkney Islands. 2. The largest of the Shetland Islands. 3. Honshu, Japan.

**main line**. 1. A principal section of a railroad line. 2. **Slang**. A principal and easily accessible vein, usually in the arm or leg, through which narcotics can be injected.

**main line** (mān'līn) *intr.v.* -lined, -lining, -lines. **Slang**. To inject narcotics directly into a major vein.

**main line**. The fashionable suburbs west of Philadelphia, Pennsylvania, along the railroad line to Paoli.

**mainly** (mān'lē) *adv.* Most importantly; for the most part.

**main mast** (mān'māst) *n.* 1. The principal mast of a vessel.

2. The taller mast, whether forward or aft, of any two-masted sailing vessel. 3. The second mast aft of any sailing ship with two or more masts.

**main topmast** (roī'el-māst). The section of the mainmast of a square-rigged vessel above the main topgallantmast.

**main sail** (mān'sēl) *n.* 1. The principal sail of a vessel. 2. A triangular or rectangular sail set from the after part of the mainmast on a fore-and-aft rigged vessel. 3. A square sail set in the main yard on a square-rigged vessel.

**main sequence**. A major grouping of stars, containing the sun, 90 per cent of the known stars in the vicinity of the sun, characterized by an approximately uniform average increase of luminosity with surface temperature as represented by a single line on the Hertzsprung-Russell diagram (see).

**main sheet** (mān'shēt) *n.* The rope that controls the angle at which the mainsail is trimmed and set.

**main spring** (mān'spring) *n.* 1. The principal spring in a mechanical device, especially in a watch or clock, that drives the mechanism by uncoiling. 2. A motivating force; an impelling force: *He was the mainspring of the reform movement.*

**main stay** (mān'stā) *n.* 1. A strong rope that serves to steady or support the mainmast of a sailing vessel. 2. A principal part: *Agriculture is a mainstay of the economy.*

**main street**. **Slang**. The principal street in a town or city.

**main stream** (mān'strēm) *n.* The prevailing current or direction of a movement or influence: *writers in the mainstream of 19th-century thought*.

**street**. 1. The principal street of an American town or city. 2. **Capital M.** **capital S.** The culture of smug, materialistic, provincial small towns. [Sense 2, chiefly from *Main Street* (1901), novel by Sinclair Lewis.]

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**maintain** (mān-tān') *tr.v.* -tained, -taining, -tains. **4. To continue, carry on, keep up; maintain good relations; maintain a custom.** 2. To preserve or retain: *"the presence of mind to maintain a composed exterior"* (Saki). 3. To keep in a condition of good repair or efficiency: *maintain public roads*. 4. a. To provide for; bear the expenses of: *maintain a family*. b. To keep in existence; sustain: *food to maintain life*. 5. To defend or sustain; hold against attack: *"Perhaps the Germans could not maintain the corridor."* (Winston Churchill). 6. To declare to be true; defend against dispute: *The defendant maintains his innocence*. 7. To assert in or as if in an argument; state; declare: *"Descartes maintained that thought was the essence of the mind."* (David Hume). —See Synonyms at *support*. [Middle English *maintenir*, from Old French *maintenir*, from Medieval Latin *manū tenere*, from Latin *manū tenere*, "to hold in the hand," support, know: *manū*, ablative of *manus*, hand (see *man-* in Appendix\*) + *tenere*, to hold (see *ten-* in Appendix\*).] —*main-tain'-a-ble* *adj.* —*main-tain'-er* *n.*

**main-tenance** (mān'tē-nāns) *n.* 1. a. The action of continuing, carrying on, preserving, or retaining something: *maintenance of the peace*. b. The state of being continued, carried on, preserved, or retained: *the maintenance of tribal custom*. 2. The support or defense of an opinion, action, or cause: *an appeal to law in the maintenance of his opinions*. 3. The work of keeping something in proper condition: *the maintenance of roads*.

4. a. The provision of support or livelihood: *maintenance of serfs by a feudal lord*. b. Means of support or livelihood: *His income barely provided maintenance*. —See Synonyms at *livelihood*. [Middle English *maintenance*, from Old French *maintenance*, from *maintenir*, to MAINTAIN.]

**Main-tenon** (mānt-nōn'), **Marquise de**. Title of Françoise d'Aubigné, 1635-1719. Mistress of Louis XIV and (from 1685) his second wife.

**main-top** (mān'tōp') *n.* A platform at the head of the mainmast on a square-rigged vessel.

**main top-gal-lant** (tā-gāl'ant). A sail or yard set from the topgallant section of a mainmast.

**main top-gal-lant-mast** (tā-gāl'an-māst). The section of the mainmast next above the main topmast on a square-rigged vessel.

**main top-mast** (tōp'māst). The section of the mainmast on a square-rigged sailing vessel between the lower mast and the main topgallantmast.

**main top-sail** (tōp'sēl). The sail that is set above the mainsail.

**main yard**. The lower yard on a mainmast.

**Mainz** (mints). Also **French, Ma-yence** (mā-yāns'). A city and port of West Germany, at the confluence of the Main and Rhine rivers, 20 miles southwest of Frankfurt. Population, 141,000.

**maître d'hôtel** (mē'tr' dō-tēl') *pl.* *maîtres d'hôtel* (mē'tr' dō-tēl'). 1. A head steward or butler, *major-domo* (see). 2. A headwaiter (see). Also informally called "maltre d'". 3. A sauce of melted butter, chopped parsley, lemon juice, salt, and pepper. [French, "master of hotel."]

**maize** (māz) *n.* 1. A grain native to the New World, corn (see). 2. Light yellow to moderate orange yellow. See *color*. [Spanish *maiz*, from Taino *mahiz*.] —*maize* *adj.*

**Maj.** *major*.

**ma-jes-tic** (mā-jēs'tik) *adj.* Also **ma-jes-ti-cal** (-tī-kəl). Having or exhibiting stateliness or great dignity; royal; dignified: *"Mrs. Crupp . . . thanked me with a majestic curtsy."* (Dickens). See Synonyms at *grand*. —*ma-jes-ti-cal-ly* *adv.*

**ma-jes-ty** (mā-jēs'tē) *n.* *pl.* *-ties*. 1. a. The greatness and dignity of a sovereign. b. The sovereignty and power of God. 2. The supreme authority or power: *the majesty of the law*. 3. a. A royal personage. b. *Capital M.* *Abbr. M.* A title used in speaking of or to a sovereign monarch: *His Majesty's wish*; *Your Majesty*. 4. a. Royal dignity of bearing or aspect; grandeur: *"Edith was there in all her majesty of brow and figure."* (Dickens). b. Stateliness, splendor, or magnificence, as of appearance, style, or character; imposing quality: *the Greek statue in all the majesty of its classical beauty*. [Middle English *maiestie*, *maieste*, from Old French *maieste*, from Latin *majestas*, authority, grandeur. See *mag-* in Appendix.\*]

**Maj.** *Gen.* *major* general.

**ma-jol-i-ca** (mā-jōl'i-kā, -yōl'-) *n.* 1. A type of richly colored and decorated Italian Renaissance pottery that is enameled and glazed. 2. A modern pottery made in imitation of this. [Italian *maiolica*, from *Majolica*, medieval form of MAJORCA, where the ceramic style originated.]

**ma-jor** (mā'jor) *adj.* 1. Greater in importance, rank, or stature: *a major writer*; *a major scientific discovery*. 2. Serious or dangerous; requiring great attention or concern: *major difficulties*; *a major illness*. 3. *Law*. Having attained full legal age. 4. Designating the senior or older of two pupils with the same surname. Used especially in English public schools. 5. Designating or relating to the principal field of academic specialization chosen by students in a college or university. 6. *Logic*. More inclusive in scope; broader, as the *major premise* and *major term* (both of which see). 7. *Music*. a. Designating a scale or mode having half steps between the third and fourth and the seventh and eighth degrees. b. Equivalent to the distance between the tonic note and the second or third or sixth or seventh degrees of a major scale or mode: *a major interval*. c. Based on a major scale: *major key*. Compare *minor*. —*n.* 1. *Abbr. Maj.* a. An officer in the U.S. Army, Air Force, or Marine Corps ranking next above a captain and next below a lieutenant colonel. b. An officer of similar rank in other military or paramilitary organizations. 2. *Law*. One who has reached full legal age (21 years



Moses Maimonides  
Eighteenth-century  
Italian medallion



majolica  
Made in 15th-century  
Florence, Italy

l/th thin, path/th this, bathe/ū cut/ūr urge/v valve/w with/y yes/z zebra, size/zh vision/ə about, item, edible, gallop, circus/ami/æ Fr. feu, Ger. schön/ū Fr. tu, Ger. über/KH Ger. ich, Scot. loch/N Fr. bon. \*Follows main vocabulary. †Of obscure origin.